MOLYBDENUM STATISTICS
By Thomas D. Kelly and Michael J. Magyar
[All values in metric tons (t) unless otherwise noted]
Last modification: May 22, 2003

Year	Production	Shipments	Imports	Exports	Stocks	Apparent consumption	Unit value ($/t)	Unit value (98$/t)	World production
1900	0					0			10.0
1901	7.00					7.0			22.0
1902	7.00					7.0			46.0
1903	108					110			148
1904	7.00					7.0			62.0
1905	4.00					4.0			90.8
1906	7.00					7.0			90.8
1907	0					0			90.8
1908	15.0					15			136
1909	0					0			91.0
1910	0					0			91.0
1911	0		7.71			7.7			91.0
1912	0		3.17			3.2	450	7,600	181
1913	0		7.08			7.1	670	11,000	91.0
1914	0.588					0.59	2,240	36,400	136
1915	82.4					82	2,240	36,000	272
1916	93.8					94	2,240	33,400	454
1917	159					160	3,160	40,200	590
1918	391		54.5			450	3,270	35,400	816
1919	180	135	26.6	45.0		210	2,580	24,300	408
1920	15.8	15.8	3.90	7.11		58	1,120	9,110	181
1921	0	0	7.43			15	1,570	14,300	45.0
1922	0	0	103			100	490	4,760	45.0
1923	10.3	10.3	7.56			18	1,700	16,200	136
1924	135	135	4.90			140	2,020	19,200	272
1925	523	523	1.01			520	900	8,330	680
1926	649	649	6.35			660	1,570	14,400	816
1927	1,040	1,040	6.44			1,000	1,700	15,900	1,220
1928	1,510	1,510	0.261			1,500	2,240	21,300	1,720
1929	1,770	1,770	0.738			1,800	1,120	10,700	2,000
1930	1,710	1,710	65.8			1,800	1,230	12,100	1,910
1931	1,420	1,430	95.6			1,500	940	10,100	1,590
1932	1,100	1,080	0.0200			1,100	1,120	13,400	1,320
1933	2,580	2,610	0.304			2,600	1,680	21,100	2,990
1934	4,250	4,250	97.0			4,300	1,570	19,100	5,130
1935	5,220	4,940	31.2			5,300	1,570	18,600	6,530
1936	7,800	8,150	0.0222			7,800	1,480	17,400	9,030
1937	13,300	13,700	3.50			13,000	1,520	17,300	14,800
1938	15,100	11,700	0.0113			15,000	1,570	18,200	16,400
1939	13,800	14,700	34.0	10,200		3,600	1,520	17,800	15,600
1940	15,600	11,500	0	2,990		13,000	1,550	18,000	17,400
1941	18,300	17,400	1.95	3,470	13,700	15,000	1,520	16,800	20,300
1942	25,800	30,100	343	7,000	9,530	23,300	1,590	15,900	29,000
1943	28,000	24,500	811	4,890	13,700	19,800	1,641	15,500	31,600
1944	17,500	17,900	1,560	3,970	12,700	16,100	1,736	16,100	21,500
1945	14,000	15,300	302	1,300	13,500	12,200	1,711	15,600	16,300
1946	8,260	7,610	125	567	13,600	7,720	1,795	15,000	10,800
1947	12,300	10,100	0.00	1,690	15,600	8,610	1,826	13,300	14,000
1948	12,100	13,500	0.00	2,240	13,000	12,500	1,868	12,600	13,600
1949	10,200	10,600	21.8	2,720	13,600	6,900	2,097	14,400	11,400
1950	12,900	20,200	1.26	3,230	2,640	20,600	2,146	14,500	14,500

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1951	17,600	17,200	3.74	2,160	3,670	14,400	2,312	14,500	20,300
1952	19,600	19,400	22.5	3,200	4,640	15,500	2,354	14,400	22,600
1953	26,000	24,400	0.000	3,410	6,900	20,300	2,423	14,800	28,400
1954	26,600	29,000	70.0	6,250	4,020	23,300	2,545	15,400	29,700
1955	28,000	29,400	61.0	6,740	2,670	22,700	2,570	15,700	34,000
1956	26,100	25,900	27.7	8,460	4,580	15,800	2,719	16,300	31,900
1957	27,600	25,900	709	11,700	7,250	13,900	2,851	16,500	34,600
1958	18,600	19,200	43.0	5,510	8,180	12,200	2,946	16,600	26,200
1959	23,100	23,400	51.2	8,640	6,630	16,100	3,018	16,900	32,400
1960	31,000	31,700	89.6	14,000	7,080	16,600	3,040	16,700	40,400
1961	30,200	30,300	14.5	16,500	5,500	15,300	3,231	17,600	33,600
1962	23,200	22,900	34.9	7,160	5,210	16,400	3,311	17,800	26,900
1963	29,500	29,900	198	12,200	5,630	17,100	3,302	17,600	34,000
1964	29,800	29,500	135	12,600	6,060	16,900	3,512	18,500	35,300
1965	35,100	35,100	267	11,900	6,210	23,300	3,660	18,900	44,700
1966	41,100	41,600	123	14,200	9,220	24,000	3,625	18,200	56,700
1967	40,900	37,000	549	14,300	12,400	24,000	3,731	18,200	64,300
1968	42,400	42,300	208	13,600	17,200	24,200	3,831	18,000	65,700
1969	45,300	46,700	78.0	26,700	14,400	21,500	3,973	17,670	72,300
1970	50,500	50,100	145	26,400	18,700	19,900	3,896	16,360	82,300
1971	49,700	44,400	494	21,800	29,100	18,000	3,596	14,480	77,600
1972	50,900	46,400	456	21,100	35,900	23,500	4,056	15,810	79,300
1973	52,600	61,300	752	34,600	23,800	30,900	3,985	14,620	81,700
1974	50,800	53,600	307	37,300	21,300	16,300	4,541	15,010	84,200
1975	48,100	47,700	1,390	29,500	18,300	23,000	5,352	16,210	81,800
1976	51,400	51,900	1,280	29,700	14,700	26,600	5,660	16,210	88,700
1977	55,500	56,700	2,180	30,700	13,000	28,700	7,317	19,690	95,100
1978	59,800	59,300	2,660	33,300	12,200	30,000	9,202	22,990	100,000
1979	65,300	65,100	2,150	37,000	12,300	30,400	12,878	28,930	104,000
1980	68,400	67,700	3,080	35,000	23,800	25,000	17,814	35,250	111,000
1981	63,500	53,900	3,560	26,900	38,900	25,100	24,280	43,520	109,000
1982	38,300	34,500	4,540	26,700	41,800	13,200	22,803	38,510	95,000
1983	15,200	22,100	4,010	24,400	19,800	16,800	15,974	26,140	63,800
1984	47,000	46,400	4,110	36,500	17,500	16,900	11,592	18,190	97,700
1985	49,200	50,800	2,640	36,300	15,800	17,200	13,544	20,530	98,400
1986	42,600	43,100	3,050	28,000	15,400	18,100	6,374	9,478	93,200
1987	34,100	31,700	6,050	20,600	19,600	15,400	6,706	9,620	99,500
1988	43,100	45,200	4,007	27,200	14,500	25,000	6,377	8,789	113,000
1989	63,100	61,700	2,380	54,000	16,200	9,780	7,292	9,590	136,000
1990	61,600	61,600	2,560	43,900	16,200	20,300	5,908	7,370	127,000
1991	53,400	53,600	2,630	36,200	17,300	18,700	4,905	5,870	115,000
1992	49,700	43,100	3,320	36,100	21,900	12,300	5,093	5,917	114,000
1993	36,800	39,200	7,140	30,800	19,800	15,200	4,669	5,269	99,200
1994	46,800	46,000	7,180	38,300	11,600	23,900	3,511	3,861	108,000
1995	60,900	61,700	11,600	50,800	12,400	20,900	11,931	12,760	136,000
1996	56,000	35,800	13,200	49,700	9,900	22,000	6,559	6,816	127,000
1997	60,100	32,100	13,100	62,100	11,300	9,700	6,907	7,015	138,000
1998	53,300	52,100	14,300	46,300	16,200	16,400	6,030	6,030	135,000
1999	42,400	42,800	14,000	32,300	12,000	28,300	4,568	4,470	128,000
2000	41,100	33,800	15,000	27,600	11,400	29,100	4,932	4,670	129,000

Molybdenum Worksheet Notes

Data Sources
The sources of data for the molybdenum worksheet are the mineral statistics publications of the U.S. Bureau of Mines (USBM) and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR); Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries; Metal Prices in the United States through 1998 (MP98); and Intermet Molybdenum Yearbook 1983 (Sutolov, 1983, p. 251-252). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were not available.

Production
Production data show the U.S. mine production of molybdenum concentrate in contained weight of molybdenum. For the years 1900–06 and 1908, data are from Sutolov (1983, p. 251-252). For the year 1926, mine output was withheld to avoid disclosing proprietary data. For the years 1909–2000, data are from the MR and MYB.

Shipments
Shipments are the amount of concentrate shipped by producers in contained weight of molybdenum. Data are from the MR and the MYB. Data are not available for the years 1900–25 and 1927–30.

Imports
Imports are the molybdenum content of ores and concentrate and molybdenum products except for the year 1911 reported in gross weight. Data were not available for the years 1900–10 and 1914–17. Datum for the year 1911 is a combination of unspecified amounts of molybdenum and ferromolybdenum in gross weight. Data are from the MR and MYB.

Exports
Exports are the molybdenum content of ores and concentrates and molybdenum products. Data were not available for the years 1900–39. Data are from the MR and MYB.

Stocks
Stocks are the sum of concentrate stocks, product stocks, and consumer stocks in contained weight of molybdenum. For the years 1919–20, stocks are reported in the MR as producer stocks. Stocks data were not available for the years 1900–40. Consumer stocks data are not available for the years 1941–43, 1949–53, and 1955. Data are from the MR and MYB.

Apparent Consumption
Apparent consumption was calculated with the formula:

$$\text{APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS} \pm \text{STOCK CHANGES}.$$

If imports, exports, stocks were not available, they were not included in the calculation of apparent consumption. For these years, where data were incomplete, apparent consumption is reported in two significant figures. For the year 1926, the shipment amount was substituted for production in the calculation.

Unit Value ($/t)
Unit value is defined as the value of 1 metric ton (t) of molybdenum metal apparent consumption. For the years 1912–42, the unit value is estimated with the molybdenum concentrate price series published in MP98. For the years 1943–2000, the unit value is estimated by weight averaging the concentrate price series from MP98 with price series for molybdic oxides and ferromolybdenum, the two largest, reported molybdenum products. Prior to 1943, the product data (both reported consumption and price) were not available to calculate the weight average. For the years 1943–2000, the only prices available were for molybdic oxides and ferromolybdenum.

Unit Value (98$/t)
The Consumer Price Index, with 1998 as the base year, is used to adjust unit value in current dollars to the unit value in constant 1998 dollars.

World Production
World production reports world mine production of ores and concentrates. For the years 1900–04, data are from Sutolov (1983, p. 251-252). For the years 1905–2000, data are from the MR and MYB.

References
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